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## PURAFIL ENVIRONMENTAL CORROSIVITY REPORT

03-Dec-2010

**Company:** 118724

Room/Area ID: Reference #:



 Sales Order #:
 C002697

 CCC Panel #:
 P67929

 Date In:
 02-Nov-2010

 Date Out:
 16-Nov-2010

Days In Service: 14

**CCC Panel # P67929** 

ISA Class G1 Mild

Copper Corrosion 291 Å/30 Days

Silver Corrosion 461 Å/30 Days

(see next page for complete analysis)

## Summary for PURAFIL CCC # P67929

The electrolytic reduction analysis on Corrosion Classification Coupon #P67929 shows the presence of only very low concentrations of contaminants in the environment tested. The hydrogen sulfide level is not expected to exceed 3 ppb and the sulfur dioxide level should be less than 10 ppb. During the test period, corrosion, as shown by the copper coupon, is not a factor in determining equipment reliability.

Please note: Copper's reactivity is sensitive to temperature and relative humidity and can therefore exhibit seasonal variation. For example, below 30% relative humidity (typical for heated indoor air in winter), copper readings will be dramatically reduced. However, silver's reactivity is not affected by temperature and relative humidity. Due to the elevated level of film growth on the silver coupon, corrosion may be a factor in determining equipment reliability; continued monitoring is recommended.

Your local representative for additional information and assistance is:

Environmental Health and Eng

117 Fourth Avenue, Needham MA 02494, USA

tminegishi@eheinc.com

Purafil, Inc. / 2654 Weaver Way, Doraville GA 30340 USA / (770) 662-8545 / (770) 263-6922 Email: purafil@purafil.com / Internet: http://www.purafil.com

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## PURAFIL CCC # P67929 Analysis Results

Corrosion Film Composition Projections				Gold Coupon - Magnified 20x
	30 Days	1 Year	5 Year	
Copper Films				
Cu <sub>2</sub> S	186 Å	249 Å	325 Å	
Cu <sub>2</sub> O	105 Å	141 Å	184 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	291 Å	390 Å	509 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag <sub>2</sub> S	461 Å	5613 Å	28063 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	461 Å	5613 Å	28063 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

## Equipment Reliability Correlation

(ISA Standard S71.04-1985 for Copper)



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